What is claimed is:

1. An image forming apparatus comprising:

reading means for reading images recorded on

originals;

image forming means for forming images on blank

sheets based on the read images;

stacking means for stacking a plurality of insert

sheets which are fed in a manner bypassing image

formation by said image forming means and inserted

between said sheets having images formed thereon by

said image forming means;

inserter means for reading out the stacked insert

sheets and inserting same between the sheets having

images formed thereon;

designating means for designating at least one

position in said sheets having images formed thereon

for insertion of at least one of the insert sheets by

said inserter means;

detecting means for detecting an insert sheet to

be inserted first when a plurality of positions have

been designated by said designating means; and

discharging means operable when said detecting

means detects that the insert sheet read out by said

inserter means is not the insert sheet to be inserted

first, for discharging insert sheets from said stacking

means until the insert sheet to be inserted first is

detected.

  2. An image forming apparatus according to claim 1, wherein said stacking means comprises a plurality of trays for stacking said plurality of insert sheets in a divided manner, the image forming apparatus further comprising selecting means capable of selecting between two types of stacking modes consisting of a first stacking mode in which a same type of insert sheets are stacked on each of said plurality of trays and a second stacking mode in which plural types of insert sheets are stacked in order in which they are inserted on each of said plurality of trays, and wherein said discharging means discharges insert sheets from said stacking means when said second stacking mode is selected by said selecting means.

  3. An image forming apparatus according to claim 1, further comprising post-processing means for stacking said sheets having images formed thereon by said image forming means in a fashion mixed with insert sheets inserted by said inserter means, and for carrying out post-processing on the mixedly stacked sheets.

  4. An image forming apparatus according to claim 3, wherein said discharging means discharges said insert sheets to a location other than said post-processing means.

  5. An image forming apparatus according to claim

1, comprising a conveyance path for insert sheets, and wherein said detecting means is provided on said conveyance path for insert sheets.

6. An image forming apparatus comprising:

reading means for reading images recorded on originals;

image forming means for forming images on blank sheets based on the read images;

stacking means for stacking a plurality of insert sheets which are fed in a manner bypassing image formation by said image forming means and inserted between the sheets having images formed thereon by said image forming means;

inserter means for reading out the stacked insert sheets and inserting same between said sheets having images formed thereon;

designating means for designating at least one position in said sheets having images formed thereon for insertion of at least one of the insert sheets by said inserter means;

detecting means for detecting an insert sheet to be inserted first when a plurality of positions have been designated by said designating means;

interrupting means for interrupting a sheet inserting operation of said inserter means when at least one of the insert sheets has jammed while being inserted by said inserter means; and

discharging means operable when said detecting

means detects that the insert sheet read out by said

inserter means is not the insert sheet to be inserted

first after the apparatus has recovered from the

5   interruption by removing the at least one jammed insert

sheet, for discharging insert sheets from said stacking

means until the insert sheet to be inserted first is

detected, and for further discharging insert sheets

from said stacking means up to an insert sheet

10   immediately preceding a same type of sheet as the at

least one jammed insert sheet.

7.   An image forming apparatus according to claim

6, for stacking said plurality of insert sheets in a

divided manner, the image forming apparatus further

15   comprising selecting means capable of selecting between

two types of stacking modes consisting of a first

stacking mode in which a same type of insert sheets are

stacked on each of said plurality of trays and a second

stacking mode in which plural types of insert sheets

20   are stacked in order in which they are inserted on each

of said plurality of trays, and wherein said

discharging means discharges insert sheets from said

stacking means when said second stacking mode is

selected by said selecting means..

25   8.   An image forming apparatus according to claim

6, further comprising post-processing means for

stacking said sheets having images formed thereon by

said image forming means in a fashion mixed with insert

sheets inserted by said inserter means, and for

carrying out post-processing on the mixedly stacked

sheets.

5   9.   An image forming apparatus according to claim

8, wherein said discharging means discharges said

insert sheets to a location other than said post-

processing means.

         10.   An image forming apparatus according to claim

10   6, comprising a conveyance path for insert sheets, and

wherein said detecting means is provided on said

conveyance path for insert sheets.

         11.   An image forming apparatus comprising:

         reading means for reading images recorded on

15   originals;

         image forming means for forming images on blank

sheets based on the read images;

         stacking means for stacking a plurality of insert

sheets which are fed in a manner bypassing image

20   formation by said image forming means and inserted

between the sheets having images formed thereon by said

image forming means;

         inserter means for reading out the stacked insert

sheets and inserting same between said sheets having

25   images formed thereon;

         mixed stacking means for stacking in a mixed

fashion the sheets having images formed thereon by said

image forming means and insert sheets to be inserted by said inserter means between the sheets having images formed thereon;

insert sheet discharging detecting means for
5   detecting that said insert sheets have been discharged to said mixed stacking means; and

sheet feeding control means responsive to detection of discharging of said insert sheets by said insert sheet discharging detecting means, for
10 controlling such that feeding of said blank sheets to said image forming means be started.

12. An image forming apparatus comprising:

reading means for reading images recorded on originals;

15 image forming means for forming images on blank sheets based on the read images;

stacking means for stacking a plurality of insert sheets which are fed in a manner bypassing image formation by said image forming means and inserted
20 between the sheets having images formed thereon by said image forming means;

inserter means for reading out the stacked insert sheets and inserting same between said sheets having images formed thereon;

25 mixed stacking means for stacking in a mixed fashion the sheets having images formed thereon by said image forming means and insert sheets to be inserted by

said inserter means between the sheets having images formed thereon;

image formed sheet discharging detecting means for detecting that said sheets having image formed thereon have been discharged to the mixed stacking means; and

reading control means responsive to detection of discharging of said insert sheets by said image formed sheet discharging detecting means, for controlling such that reading of said insert sheets by said inserter means be started.

13. An image forming apparatus comprising:

reading means for reading images recorded on originals;

image forming means for forming images on blank sheets based on the read images;

stacking means for stacking a plurality of insert sheets which are fed in a manner bypassing image formation by said image forming means and inserted between the sheets having images formed thereon by said image forming means;

inserter means for reading out the stacked insert sheets and inserting same between said sheets having images formed thereon;

mixed stacking means for stacking in a mixed fashion the sheets having images formed thereon by said image forming means and insert sheets to be inserted by said inserter means between the sheets having images

formed thereon;

insert sheet discharging detecting means for detecting that said insert sheets have been discharged to said mixed stacking means;

5   sheet feeding control means responsive to detection of discharging of said insert sheets by said insert sheet discharging detecting means, for controlling such that feeding of said blank sheets to said image forming means be started;

10   image formed sheet discharging detecting means for detecting that said sheets having image formed thereon have been discharged to the mixed stacking means; and

reading control means responsive to detection of discharging of said insert sheets by said image formed

15   sheet discharging detecting means, for controlling such that reading of said insert sheets by said inserter means be started.

14.   A control method of controlling an image forming apparatus, comprising the steps of:

20   reading images recorded on originals by reading means;

forming images on blank sheets based on the read images by image forming means;

reading out insert sheets from a plurality of

25   insert sheets stacked by stacking means, which are fed in a manner bypassing image formation by said image forming means and inserted between the sheets having

images formed thereon by said image forming means and inserting the read out insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

designating at least one position in said sheets having images formed thereon for insertion of at least one of the insert sheets by said inserter means, by designating means;

detecting an insert sheet to be inserted first by detecting means when a plurality of positions have been designated by said designating means; and

discharging insert sheets from said stacking means until the insert sheet to be inserted first is detected, by discharging means when said detecting means detects that the insert sheet read out by said inserter means is not the insert sheet to be inserted first.

15. A control method according to claim 14, wherein said stacking means comprises a plurality of trays for stacking said plurality of insert sheets in a divided manner, the control method further comprising a step of selecting by selecting means between two types of stacking modes consisting of a first stacking mode in which a same type of insert sheets are stacked on each of said plurality of trays and a second stacking mode in which plural types of insert sheets are stacked in order in which they are inserted on each of said

plurality of trays, and wherein said discharging step comprises discharging insert sheets from said stacking means when said second stacking mode is selected by said selecting means.

5   16.   A control method according to claim 14, further comprising the steps of stacking said sheets having images formed thereon by said image forming means in a fashion mixed with insert sheets inserted by said inserter means, and carrying out post-processing

10   on the mixedly stacked sheets, by post-processing means.

17.   A control method according to claim 16, wherein said discharging step comprises discharging said insert sheets to a location other than said post-

15   processing means.

18.   A control method according to claim 14, wherein said detecting means is provided on a conveyance path for insert sheets.

19.   A control method of controlling an image

20   forming apparatus, comprising the steps of:

reading images recorded on originals by reading means;

forming images on blank sheets based on the read images by image forming means;

25   reading out insert sheets from a plurality of insert sheets stacked by stacking means, which are fed in a manner bypassing image formation by said image

forming means and inserted between the sheets having images formed thereon by said image forming means and inserting the read out insert sheets between the sheets having images formed thereon by said image forming

5   means, by inserter means;

designating at least one position in said sheets having images formed thereon for insertion of at least one of the insert sheets by said inserter means, by designating means;

10   detecting an insert sheet to be inserted first by detecting means when a plurality of positions have been designated by said designating means;

interrupting a sheet inserting operation of said inserter means by interrupting means when at least one

15   of the insert sheets has jammed while being inserted by said inserter means; and

discharging insert sheets from said stacking means until the insert sheet to be inserted first is detected, and further discharging insert sheets from

20   said stacking means up to an insert sheet immediately preceding a same type of sheet as the at least one jammed insert sheet, by discharging means, when said detecting means detects that the insert sheet read out by said inserter means is not the insert sheet to be

25   inserted first after the apparatus has recovered from the interruption by removing the at least one jammed insert sheet.

20. A control method according to claim 19, wherein said stacking means comprises a plurality of trays for stacking said plurality of insert sheets in a divided manner, the control method further comprising a step of selecting by selecting means between two types of stacking modes consisting of a first stacking mode in which a same type of insert sheets are stacked on each of said plurality of trays and a second stacking mode in which plural types of insert sheets are stacked in order in which they are inserted on each of said plurality of trays, and wherein said discharging step comprises discharging insert sheets from said stacking means when said second stacking mode is selected by said selecting means.

21. A control method according to claim 19, further comprising the steps of stacking said sheets having images formed thereon by said image forming means in a fashion mixed with insert sheets inserted by said inserter means, and carrying out post-processing on the mixedly stacked sheets, by post-processing means.

22. A control method according to claim 21, wherein said discharging step comprises discharging said insert sheets to a location other than said post-processing means.

23. A control method according to claim 19, wherein said detecting means is provided on a

conveyance path for insert sheets.

24. A control method of controlling an image forming apparatus, comprising the steps of:

reading images recorded on originals by reading

5　means;

forming images on blank sheets based on the read images by image forming means;

reading out insert sheets from a plurality of insert sheets stacked by stacking means, which are fed

10　in a manner bypassing image formation by said image forming means and inserted between the sheets having images formed thereon by said image forming means and inserting the read out insert sheets between the sheets having images formed thereon by said image forming

15　means, by inserter means;

detecting by insert sheet discharging detecting means that said insert sheets have been discharged to mixed stacking means that stacks in a mixed fashion the sheets having images formed thereon by said image

20　forming means and insert sheets to be inserted by said inserter means between the sheets having images formed thereon; and

starting feeding of said blank sheets to said image forming means in response to detection of

25　discharging of said insert sheets by said insert sheet discharging detecting means.

25. A control method of controlling an image

forming apparatus, comprising the steps of:

reading images recorded on originals by reading means;

forming images on blank sheets based on the read

5 images by image forming means;

reading out insert sheets from a plurality of insert sheets stacked by stacking means, which are fed in a manner bypassing image formation by said image forming means and inserted between the sheets having

10 images formed thereon by said image forming means and inserting the read out insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

detecting by insert sheet discharging detecting

15 means that said insert sheets have been discharged to mixed stacking means that stacks in a mixed fashion the sheets having images formed thereon by said image forming means and insert sheets to be inserted by said inserter means between the sheets having images formed

20 thereon; and

starting reading reading of said insert sheets by said inserter means in response to detection of discharging of said insert sheets by said image formed sheet discharging detecting means.

25 26. A control method of controlling an image forming apparatus, comprising the steps of:

reading images recorded on originals by reading

means;

forming images on blank sheets based on the read images by image forming means;

reading out insert sheets from a plurality of insert sheets stacked by stacking means, which are fed in a manner bypassing image formation by said image forming means and inserted between the sheets having images formed thereon by said image forming means and inserting the read out insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

detecting by insert sheet discharging detecting means that said insert sheets have been discharged to mixed stacking means that stacks in a mixed fashion the sheets having images formed thereon by said image forming means and insert sheets to be inserted by said inserter means between the sheets having images formed thereon; and

starting sheet feeding of said blank sheet to said image forming means when discharging of said insert sheet has been detected by said insert sheet discharging detecting means;

detecting with an image formed sheet discharging detecting means that said sheet having image formed thereon has been discharged to said mixed stacking means; and

starting feeding of said blank sheets to said

image forming means in response to detection of discharging of said insert sheets by said insert sheet discharging detecting means;

detecting by image formed sheet discharging detecting means that said sheets having image formed thereon have been discharged to said mixed stacking means; and

starting reading of said insert sheets by said inserter means in response to detection of discharging of said insert sheets by said image formed sheet discharging detecting means.

27. A machine readable storage medium storing instructions of a program for causing a computer to execute an image processing method comprising the steps of:

reading images recorded on originals by reading means;

forming images on blank sheets based on the read images by image forming means;

reading out insert sheets from a plurality of insert sheets stacked by stacking means, which are fed in a manner bypassing image formation by said image forming means and inserted between the sheets having images formed thereon by said image forming means and inserting the read out insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

designating at least one position in said sheets having images formed thereon for insertion of at least one of the insert sheets by said inserter means, by designating means;

5   detecting an insert sheet to be inserted first by detecting means when a plurality of positions have been designated by said designating means; and

discharging insert sheets from said stacking means until the insert sheet to be inserted first is

10   detected, by discharging means when said detecting means detects that the insert sheet read out by said inserter means is not the insert sheet to be inserted first.

28. A machine readable storage medium according

15   to claim 27, wherein said stacking means comprises a plurality of trays for stacking said plurality of insert sheets in a divided manner, the control method further comprising a step of selecting by selecting means between two types of stacking modes consisting of

20   a first stacking mode in which a same type of insert sheets are stacked on each of said plurality of trays and a second stacking mode in which plural types of insert sheets are stacked in order in which they are inserted on each of said plurality of trays, and

25   wherein said discharging step comprises discharging insert sheets from said stacking means when said second stacking mode is selected by said selecting means.

29. A machine readable storage medium according to claim 27, wherein the control method further comprises the steps of stacking said sheets having images formed thereon by said image forming means in a fashion mixed with insert sheets inserted by said inserter means, and carrying out post-processing on the mixedly stacked sheets, by post-processing means.

30. A machine readable storage medium according to claim 29, wherein said discharging step comprises discharging said insert sheets to a location other than said post-processing means.

31. A machine readable storage medium according to claim 27, wherein said detecting means is provided on a conveyance path for insert sheets.

32. A machine readable storage medium storing instructions of a program for causing a computer to execute an image processing method comprising the steps of:

reading images recorded on originals by reading means;

forming images on blank sheets based on the read images by image forming means;

reading out insert sheets from a plurality of insert sheets stacked by stacking means, which are fed in a manner bypassing image formation by said image forming means and inserted between the sheets having images formed thereon by said image forming means and

inserting the read out insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

designating at least one position in said sheets having images formed thereon for insertion of at least one of the insert sheets by said inserter means, by designating means;

detecting an insert sheet to be inserted first by detecting means when a plurality of positions have been designated by said designating means;

interrupting a sheet inserting operation of said inserter means by interrupting means when at least one of the insert sheets has jammed while being inserted by said inserter means; and

discharging insert sheets from said stacking means until the insert sheet to be inserted first is detected, and further discharging insert sheets from said stacking means up to an insert sheet immediately preceding a same type of sheet as the at least one jammed insert sheet, by discharging means, when said detecting means detects that the insert sheet read out by said inserter means is not the insert sheet to be inserted first after the apparatus has recovered from the interruption by removing the at least one jammed insert sheet.

33. A machine readable storage medium according to claim 32, wherein said stacking means comprises a

plurality of trays for stacking said plurality of
insert sheets in a divided manner, the control method
further comprising a step of selecting by selecting
means between two types of stacking modes consisting of

5   a first stacking mode in which a same type of insert
sheets are stacked on each of said plurality of trays
and a second stacking mode in which plural types of
insert sheets are stacked in order in which they are
inserted on each of said plurality of trays, and

10   wherein said discharging step comprises discharging
insert sheets from said stacking means when said second
stacking mode is selected by said selecting means.

　　34. A machine readable storage medium according
to claim 32, wherein the control method further

15   comprises the steps of stacking said sheets having
images formed thereon by said image forming means in a
fashion mixed with insert sheets inserted by said
inserter means, and carrying out post-processing on the
mixedly stacked sheets, by post-processing means.

20   　　35. A machine readable storage medium according
to claim 34, wherein said discharging step comprises
discharging said insert sheets to a location other than
said post-processing means.

　　36. A machine readable storage medium according

25   to claim 32, wherein said detecting means is provided
on a conveyance path for insert sheets.

　　37. A machine readable storage medium storing

instructions of a program for causing a computer to execute an image processing method comprising the steps of:

reading images recorded on originals by reading means;

forming images on blank sheets based on the read images by image forming means;

reading out insert sheets from a plurality of insert sheets stacked by stacking means, which are fed in a manner bypassing image formation by said image forming means and inserted between the sheets having images formed thereon by said image forming means and inserting the read out insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

detecting by insert sheet discharging detecting means that said insert sheets have been discharged to mixed stacking means that stacks in a mixed fashion the sheets having images formed thereon by said image forming means and insert sheets to be inserted by said inserter means between the sheets having images formed thereon; and

starting feeding of said blank sheets to said image forming means in response to detection of discharging of said insert sheets by said insert sheet discharging detecting means.

38. A machine readable storage medium storing

instructions of a program for causing a computer to execute an image processing method comprising the steps of:

reading with reading means image recorded on an original;

reading images recorded on originals by reading means;

forming images on blank sheets based on the read images by image forming means;

reading out insert sheets from a plurality of insert sheets stacked by stacking means, which are fed in a manner bypassing image formation by said image forming means and inserted between the sheets having images formed thereon by said image forming means and inserting the read out insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

detecting by insert sheet discharging detecting means that said insert sheets have been discharged to mixed stacking means that stacks in a mixed fashion the sheets having images formed thereon by said image forming means and insert sheets to be inserted by said inserter means between the sheets having images formed thereon; and

starting reading reading of said insert sheets by said inserter means in response to detection of discharging of said insert sheets by said image formed

sheet discharging detecting means.

39. A machine readable storage medium storing instructions of a program for causing a computer to execute an image processing method comprising the steps of:

reading images recorded on originals by reading means;

forming images on blank sheets based on the read images by image forming means;

reading out insert sheets from a plurality of insert sheets stacked by stacking means, which are fed in a manner bypassing image formation by said image forming means and inserted between the sheets having images formed thereon by said image forming means and inserting the read out insert sheets between the sheets having images formed thereon by said image forming means, by inserter means;

detecting by insert sheet discharging detecting means that said insert sheets have been discharged to mixed stacking means that stacks in a mixed fashion the sheets having images formed thereon by said image forming means and insert sheets to be inserted by said inserter means between the sheets having images formed thereon; and

starting sheet feeding of said blank sheet to said image forming means when discharging of said insert sheet has been detected by said insert sheet

discharging detecting means;

detecting with an image formed sheet discharging detecting means that said sheet having image formed thereon has been discharged to said mixed stacking means; and

starting feeding of said blank sheets to said image forming means in response to detection of discharging of said insert sheets by said insert sheet discharging detecting means;

detecting by image formed sheet discharging detecting means that said sheets having image formed thereon have been discharged to said mixed stacking means; and

starting reading of said insert sheets by said inserter means in response to detection of discharging of said insert sheets by said image formed sheet discharging detecting means.